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**IN THE CLAIMS:**

Claims 1-12 (cancelled)

13. (Newly Presented) An implantable medical device comprising:
  - a sensor for gathering physiological data related to sleep respiratory events;
  - a memory unit for storing the physiological data;
  - a processor for extracting a sleep disordered breathing indicator data set including an average cycle length and a frequency of at least one of Cheyne-Stokes respiration and periodic breathing from the physiological data, and storing the data set in the memory unit; and
  - a telemetry device for transmitting the data set.
14. (Newly Presented) The medical device of claim 13, wherein the processor extracts arousals from the physiological data and stores the wake events in memory.
15. (Newly Presented) The medical device of claim 13, wherein the telemetry device permits interrogation of the memory.
16. (Newly Presented) The medical device of claim 13, wherein the is an intracardiac impedance sensor.
17. (Newly Presented) The medical device of claim 13, wherein the sensor is an intrathoracic impedance sensor.
18. (Newly Presented) The medical device of claim 13, wherein the sensor is a body movement sensor.

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19. (Newly Presented) The medical device of claim 13, wherein the is an oxygen sensor.

20. (Newly Presented) The medical device of claim 13, wherein the sensor is a pressure sensor.

21. (Newly Presented) The medical device of claim 13, wherein the memory unit is interrogated at predetermined intervals.

22. (Newly Presented) An implantable medical device comprising:

a plurality of sensors for gathering physiological data related to sleep respiratory events;

a processor for extracting an average cycle length and a frequency of at least one Cheyne-Stokes respiration and periodic breathing from the physiological data, and storing the data in a memory unit; and

a telemetry device for externally transmitting sleep respiratory events from a processor in the medical device.

23. (Newly Presented) The medical device of claim 22, wherein the processor extracts arousals from the data corresponding to the sleep respiratory events.

24. (Newly Presented) The medical device of claim 22, wherein the sensor is an intracardiac impedance sensor.

25. (Newly Presented) The medical device of claim 22, wherein the sensor is an intrathoracic impedance sensor.

26. (Newly Presented) The medical device of claim 22, wherein the sensor is a body movement sensor.

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27. (Newly Presented) The medical device of claim 22, wherein the sensor is an oxygen sensor.

28. (Newly Presented) The medical device of claim 22, wherein the sensor is a pressure sensor.

29. (Newly Presented) An implantable medical device for detecting and transmitting physiological data to an external access device capable of processing physiological data, the medical device comprising:

a plurality of sensors for gathering physiological data related to sleep respiratory events; and

a telemetry device in the implanted medical device for transmitting the physiological data to an external device.

30. (Newly Presented) The medical device of claim 29, wherein the sensors include an intracardiac impedance sensor.

31. (Newly Presented) The medical device of claim 29, wherein the sensors include an intrathoracic impedance sensor.

32. (Newly Presented) The medical device of claim 29, wherein the sensors include a body movement sensor.

33. (Newly Presented) The medical device of claim 29, wherein the sensors include an oxygen sensor.

34. (Newly Presented) The medical device of claim 29, wherein the sensors include a pressure sensor.

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35. (Newly Presented) The medical device of claim 36, wherein the external device processes the physiological data and extracts an average cycle length and a frequency of at least one of Cheyne-Stokes respiration and periodic breathing from the physiological data.

36. (Newly Presented) The medical device of claim 36, wherein the external device extracts arousal information corresponding to sleep respiratory events from the data.